



King County

**KING COUNTY, WASHINGTON
FINAL RECOMMENDATIONS
REPORT PRESENTATION**

GeoComm

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Agenda

- ❑ Project Scope, Purpose, Desired Outcomes, and Guiding Principles of Service
- ❑ Findings/Assessment of Current Environment
- ❑ Enhancement Opportunities and Considerations for the KCE9-1-1 Program Office
- ❑ Models Evaluated
- ❑ Optimal Model of PSAP Configuration Recommendations
- ❑ Summary



Crucial timing for study:

- Technology upgrades needed for NG9-1-1
- Regional radio system replacement project
- KCE9-1-1 is facing unsustainable funding if continuing on current path

Study Purpose

Overview

Review Project Scope and Purpose

Desired Outcomes





Project Scope

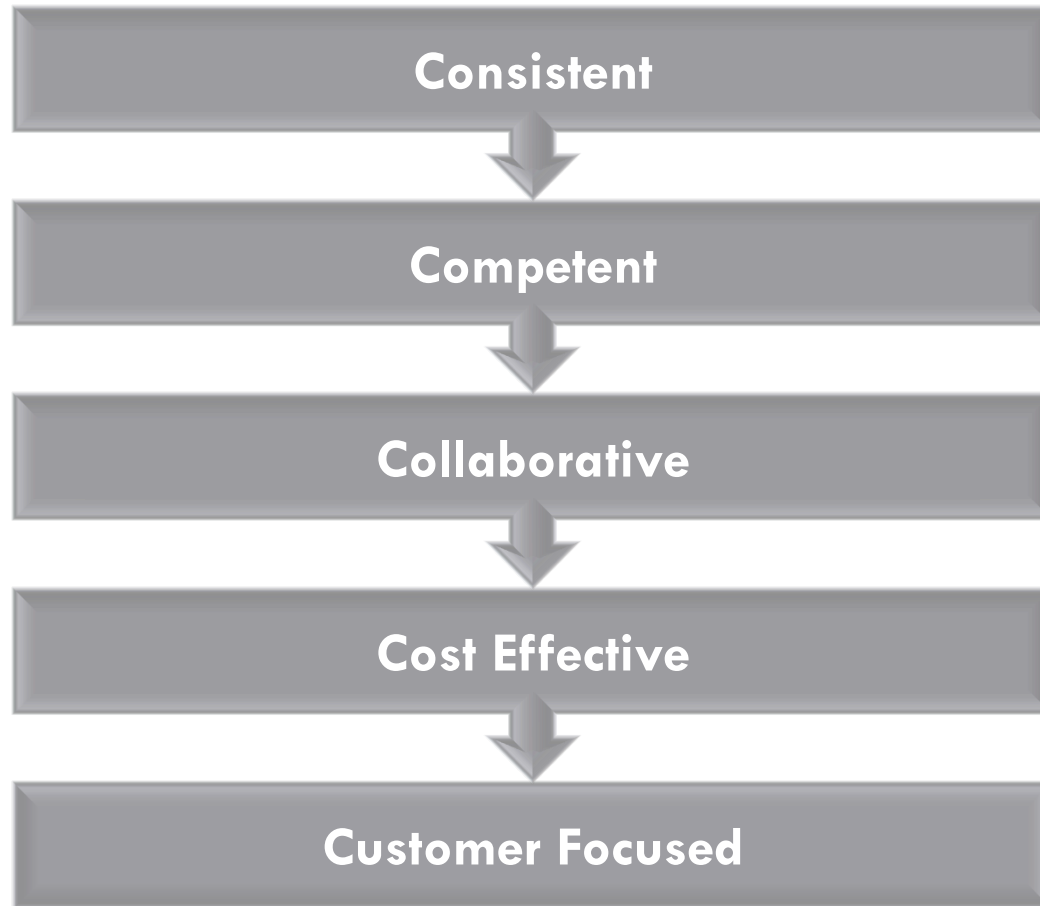
Assess whether the current PSAP structure provides the most efficient and effective emergency communications services possible, and to study goals focused on the potential for service improvements as well as cost savings that might be realized if a more consolidated approach to 9-1-1 service delivery was considered in the region.

Project Scope

O U T C O M E S

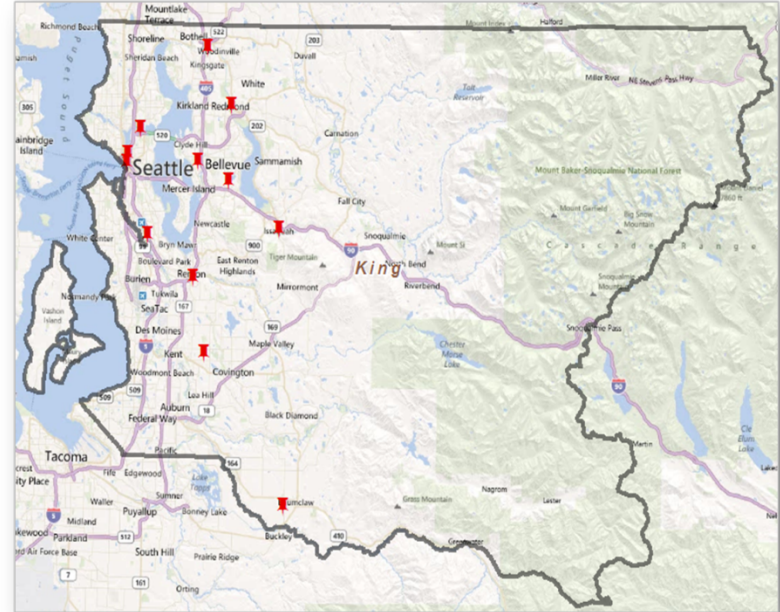
- ❑ Fiscal sustainability of high quality 9-1-1 Program
- ❑ Service to citizens and responsiveness to service goals
- ❑ Increased efficiency
- ❑ Feasibility of consolidation options

Guiding Principles



Areas of Assessment - Current Environment

- Governance
- Funding
- KCE9-1-1
- Operations
- Training
- GIS
- Facilities
- Technology and Interoperability
- Redundancy, Diversity, and Continuity of Operations



Governance Findings

KCE9-1-1 advisory committee representation and structure

Desire to preserve local decision-making

PSAP acceptance increases with shared governance

King County EMS participation

Governance Recommendations

- Governance Recommendations
 - ▣ Establish policy level oversight governance board
 - ▣ Establish appropriate committee support structure
 - ▣ If consolidation is pursued, establish an Implementation and Transition Team to assist with efforts
 - ▣ Consider whether King County EMS is appropriately represented on policy boards



Governance Recommendations

- ❑ Leverage formalized groups such as City Managers for information gathering and dissemination related to consolidation decisions and planning
- ❑ Highlight positives of already consolidated operations and experiences as discussions continue



Funding Findings

- 2013 KCE9-1-1 financial distribution budget results in a decrease of the fund balance by \$3.4 million and the undesignated fund balance by \$3.8 million

2013 KCE9-1-1 Budget Financial Distribution		
Financial Support Component	Amount of Funding	Percent
PSAP Support Costs	\$5,898,000	20.9 percent
9-1-1 PSAP CPE Equipment, Network, and Database	\$12,905,975	45.9 percent
Escrow	\$5,790,616	20.6 percent
9-1-1 System Administration and Overhead	\$2,410,588 ⁴	8.5 percent
Capital Expenditures	\$1,160,540	4.1 percent

Funding Findings

State and county excise tax for wireline, wireless, and VoIP are at the maximum rate

KCE9-1-1 funding not sustainable in the current structure

Present 9-1-1 system architecture more expensive to upgrade to NG9-1-1 and more expensive to maintain

Funding Findings

PSAPs that are not already primary for wireless 9-1-1 calls desire to handle all calls originating within their jurisdiction

WSP is only state patrol dispatch center receiving funding from a county through its 9-1-1 surcharge revenue

Financial Recommendations

- ❑ Reassess KCE9-1-1 funding priorities to sustain long-term viability
- ❑ Reconsider the level and method of support for:
 - ❑ GIS and IT positions
 - ❑ Funding for other PSAP support personnel
 - ❑ Funding of a state agency
- ❑ Prioritize objectives and fund accordingly
 - ❑ Stabilize KCE9-1-1 funding
 - ❑ Distribute if excess realized
 - ❑ PSAP escrow as the lowest priority



KCE9-1-1 Program Office

NG9-1-1 Recommendations

- ❑ Advance NG9-1-1 implementation
- ❑ Implement additional technology sharing
- ❑ Review continuity of operations, redundancy, and backup

KCE9-1-1 Program Office

Other System Recommendations

- Monitor the development of RRRP plans for impact on E9-1-1, PSAPs, or other services
- Participate in RRRP planning
- Enhance Training Program



Training Findings

Training
curriculum

Training
Coordinator

Inconsistent
standards for
QA/QI programs

Various CTO
programs creates
disparity

Compliance with
standards

TTY testing

KCE9-1-1 Program Office Training Recommendations

Expand and
enhance regional
approach to
training

Conduct a formal
training needs
analysis

Expand Training
Coordinator
responsibilities



KCE9-1-1 Program Office Training Recommendations

Standardized
QA/QI program

Minimum training
requirement
for trainers

Training
program
for supervisors

Minimum training
requirements for
PSAPs

GIS Findings

- ❑ Centralized maintenance program within the MSAG
- ❑ GIS database updated with all PSAPs' CPEs
- ❑ Regular synchronization testing
- ❑ Synchronization exceeds current industry standards



KCE9-1-1 Program Office

GIS Recommendations

- ❑ Consider working with local jurisdictions
- ❑ Ensure synchronization levels reflect the accuracy of the data related to local changes
- ❑ Keep the GIS and MSAG data maintenance at KCE9-1-1



Operations Findings

- ❑ Projected Workload and Staffing Levels
- ❑ Service level concerns
- ❑ High cost of firefighters in call taker positions



Operations Findings

- Call Routing and Call Processing Findings
 - ▣ Wireless call routing policies
 - ▣ Calls requiring transfer take longer to process
 - ▣ Calls generally processed in accordance with common industry practices



Operational Recommendations

Call Routing

- Consider reevaluating wireless call routing
- Consider options, methods, and procedures to reduce call transfers and call processing time

Staffing

- Increase staffing to appropriate levels

Operations and Operational Efficiency

- PSAP measure call processing times
- City of Seattle reevaluate the need to utilize firefighters in PSAP
- Channel loading concerns

Facility Findings

- ❑ Most PSAP facilities are well-equipped and suitable
- ❑ Most are adequate in size
- ❑ PSAP backup power systems and grounding be evaluated
- ❑ Assess alternate PSAP locations for level of functionality



Technology and Interoperability

Findings



- ❑ Multiple CAD systems throughout the region complicate call processing
- ❑ Agencies open to exploring technology sharing
- ❑ Interoperable communications governance and regional and state plans

Technology and Interoperability Recommendations

Technology

- Continue CAD interoperability project
- Discuss the feasibility of a regional CAD platform
- Consider opportunities for virtual consolidation of common technologies/systems

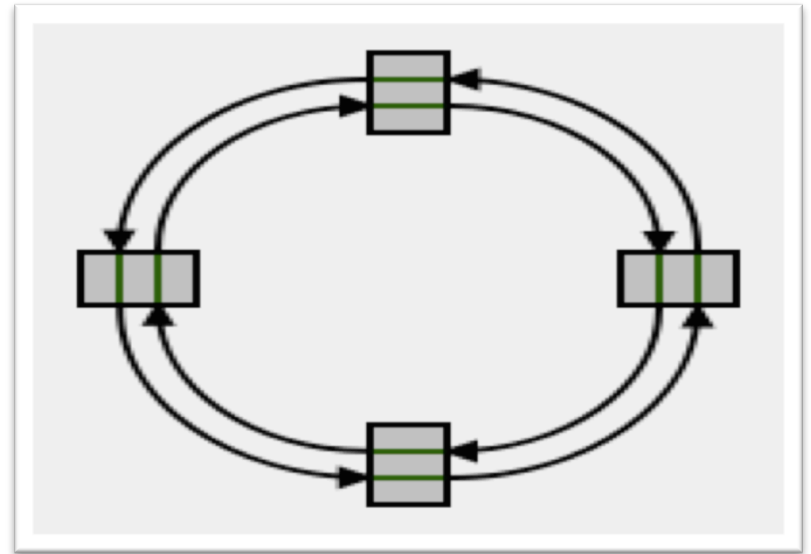


Redundancy, Diversity, and Continuity of Operations Findings

Considerable
redundancy

High cost

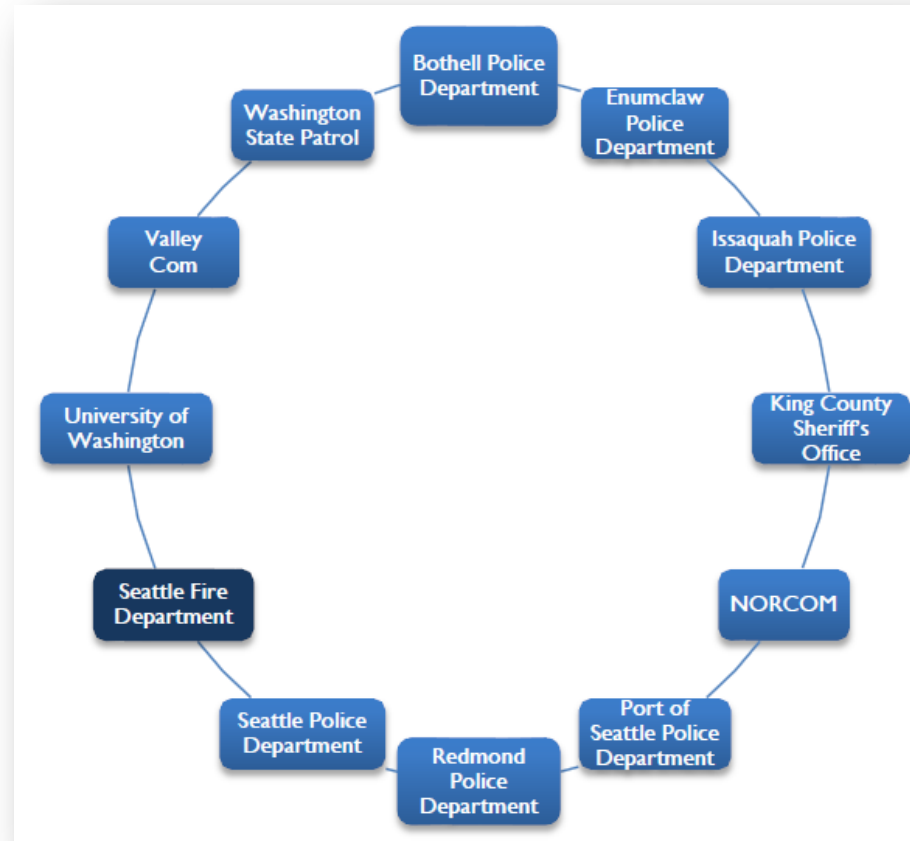
Review current standards
and technology



Redundancy, Diversity, and Continuity of Operations Recommendations

- Consider the opportunity of redundant centralized switches and redundant connections from the PSAP to more than one switch
 - ▣ Single point of failure for each PSAP is mitigated
 - ▣ Centralizing the switches reduces costs
- Consider use of microwave links

Current Configuration



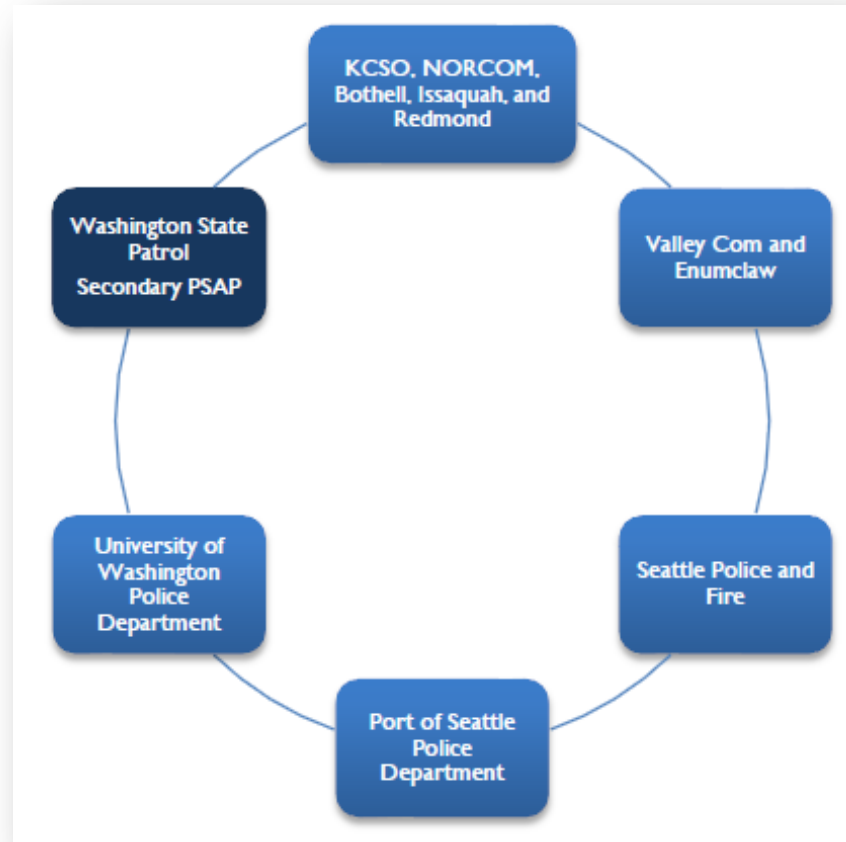
Other Models Evaluated

Various
Configurations

Model “B”

No change

Optimum Model Recommendations



Optimum Model Recommendations - Governance

Shared
decision-making
process that is
fair and equitable

Equal representation
on the
Governance Board

Contract cities
represented by their
“principal”

Ancillary duties

Optimum Model Recommendations - Financial

Implementation and
Transition Team responsible
for financial implementation
considerations and decisions

City of Seattle fiscal
planning and facility needs
assessment

Redesign an appropriate
and equitable funding and
distribution methodology

Implement KCE9-1-1
funding recommendations

Optimum Model Recommendations - Financial

City of Seattle fiscal
planning and a facility
needs assessment

Develop an appropriate
and equitable funding
and distribution
methodology

KCE9-1-1 should
reevaluate funding
support for PSAPs
based on new model

KCE9-1-1 should
discontinue or reduce
funding for technical
support

KCE9-1-1 should hold
9-1-1 escrow funds

Optimum Model Recommendations

Staffing and Cost Comparison between Current (Status Quo)³ and the Optimum Model

Description	Status Quo Staffing Cost	Optimum Staffing Cost ⁴	Staffing Costs Savings/ Difference	Status Quo Call Takers	Optimum Call Takers	Call Takers Difference (Optimum)
Seattle Fire Department	\$4,154,634	\$14,602,977	\$540,821	24	59	8
Seattle Police Department	\$10,989,164			43		
Enumclaw	\$478,817	\$12,370,500	\$(634,522)	6	59	-9
Valley Com	\$11,257,161			44		
Bothell	\$1,537,821	\$17,315,607	\$2,993,647	10	76	42
Issaquah	\$983,688			9		
Redmond	\$1,723,120			16		
KCSO	\$7,688,646			18		
NORCOM	\$8,375,979			65		
University of Washington Police Department	\$832,746	\$832,746	\$ -	8	8	0
Port of Seattle Police Department	\$1,535,438	\$1,535,438	\$ -	16	16	0
WSP	\$5,160,320	\$5,160,320	\$ -	5	5	0
Totals	\$54,717,534	\$51,817,589	\$2,899,946	264	223	41

Call taker cost savings alone compared to the current situation is approximately \$2.9 million per year (2012 costs)

Optimum Model Recommendations – Operations and Staffing

Operations

- Fire district boundaries
- Cross-train dispatchers
- Minimizes transfers

Staffing

- Evaluate the channel loading models
- Determine minimum staffing levels
- Evaluate the need to utilize firefighters in PSAP

Optimum Model Recommendations – Technology and Facility

Technology

- County-wide CAD
 - Single vendor
- Share technology
- Modify design for NG9-1-1

Facility

- City of Seattle
- Redesign KCSO facility



Optimum Model Recommendations - Budget

Budget Cost Comparison Current Budget (Status Quo) and Optimum					
Description	Status Quo Total Expenditures	Optimum Total Expenditures	Savings/ Difference Total Expenditures	Optimum Cost Per Call	Status Quo Cost Per Call
Seattle Fire Department	\$7,209,717	\$18,565,243	\$2,267,607	\$20.71	\$42.98
Seattle Police Department	\$13,623,133				\$16.80
Enumclaw	\$563,214	\$16,782,919	(\$718,918)	\$18.83	\$16.34
Valley Com	\$15,500,787				\$18.09
Bothell	\$1,619,128	\$20,209,728	\$4,465,483	\$16.13	\$23.19
Issaquah	\$1,216,970				\$21.23
Redmond	\$2,096,271				\$26.08
KCSO	\$9,146,225				\$13.86
NORCOM	\$10,596,617				\$26.08
University of Washington Police Department	\$967,672	\$967,672	\$0	\$23.77	\$23.77
Port of Seattle Police Department	\$1,784,219	\$1,784,219	\$0	\$23.77	\$23.77
WVSP	\$5,996,426	\$5,996,426	\$0	\$23.77	\$23.77
Totals	\$70,320,379	\$64,306,207	\$6,014,172		

Summary

- ❑ Independent evaluation found consolidation is feasible and discussions should continue
- ❑ Optimum model aligns with the Principles of E9-1-1 Service
- ❑ Principles developed and articulated by the PSAPs in King County can be met
- ❑ Consolidation discussions are never popular





Conclusions

We are confronted with
insurmountable opportunities....

Pogo

Questions

